

REMARKS

Claims 1 and 19 have been amended without any intention of narrowing the scope of any of the claims. Support for the amendment may be found through the as-filed specification. No new subject matter has been entered. Accordingly, claims 1-27 are currently pending, of which claims 6, 13, 14 and 26 have been withdrawn. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Entry of this Amendment is proper under 37 C.F.R. §1.116 as the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not present any new issues that would require further consideration and/or search as the amendments merely amplify issues discussed throughout the prosecution; (c) do not present any additional claims without canceling a corresponding number of claims; and (d) place the application in better form for appeal, should an appeal be necessary. Entry of this Amendment is thus respectfully requested.

Applicant submits that claims 1 and 19 are generic of at least one or more claims in this application. Therefore, upon allowance of claims 1 and 19, Applicant respectfully requests rejoinder of claims 6, 13, 14 and 26, which claims include all the limitations of an allowable claim. See MPEP, §821.04.

Claims 1-5, 7-10, 12, 15-25 and 27 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,610,683 to Takahashi ("Takahashi"). Applicant traverses this rejection for at least the following reasons.

The Office Action asserts that "Takahashi discloses where a liquid (23) is applied to a particular place being a local area of the substrate (see fig. 2, where the liquid 23 is applied in a local area of the substrate 2)." Office Action, page 2. Applicant disagrees.

First, Applicant submits that one of ordinary skill in the art would not consider the complete immersion of the substrate in liquid, as disclosed by Takahashi, to be providing a liquid to a localized area of a substrate and/or of a substrate table. The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach in light of the specification. *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999). Just because Takahashi discloses that the substrate is completely immersed in liquid, it does not follow that liquid is provided to a localized area of the substrate and/or of the substrate table as claimed. Indeed, the Office Action is unable to point to any particular place in Takahashi as being a localized area of the substrate and/or the

substrate table, since liquid 23 is applied to the whole substrate 2. Thus, the Office Action appears to rely on the whole substrate as a localized area.

Applicant submits that the interpretation of the whole substrate being immersed in liquid as corresponding to supply of liquid to a localized area of the substrate and/or substrate table as claimed is both unreasonable and inappropriate. Applicant submits that the broadest reasonable interpretation of “localized area” undoubtedly denotes something less than the whole area. *See* MPEP § 2111 (“The Patent and Trademark Office (“PTO”) determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction ‘in light of the specification as it would be interpreted by one of ordinary skill in the art.’ *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).” For example, Applicant consistently uses language of supply/provide liquid to “a localized area”, throughout the specification and in the claims, to mean something different than the area corresponding to the whole substrate. *Cf.* paragraphs [0003] and [0004] of Applicant’s specification (disclosing prior art where the substrate is immersed in a bath of liquid like in Takahashi).

While Applicant earnestly believes it to be superfluous and considers the un-amended claims patentable, Applicant has amended claims 1 and 19, solely in an effort to expedite prosecution and without the intention of limiting the scope of the claimed invention, to explicitly recite that liquid is provided to substantially only a localized area of the substrate, of the substrate table, or of both to at least partly fill a space between the projection system and the substrate, the substrate table, or both, wherein the localized area is less than the area of a surface of the whole substrate.

Therefore, Applicant respectfully submits that the cited portions of Takahashi fail to disclose or render obvious a lithographic apparatus comprising, *inter alia*, a liquid supply system configured to supply a liquid to substantially only a localized area of the substrate, of the substrate table, or of both, to at least partly fill a space between the projection system and the substrate, the substrate table or both, wherein the localized area is less than the area of a surface of the whole substrate, as recited in claim 1. Similarly, Applicant respectfully submits that the cited portions of Takahashi fail to disclose or render obvious a device manufacturing method comprising, *inter alia*, providing a liquid to substantially only a localized area of a substrate, of a substrate table, or of both, to at least partly fill a space between a projection system and the substrate, the substrate table, or both, wherein the localized area is less than the area of a surface of the whole substrate as recited in claim 19.

For example, Takahashi discloses that the wafer 2 is completely immersed in liquid 23. *See* Col 5, lines 63-65 of Takahashi (disclosing that the cassette 9 in which wafer 2 is mounted is filled with a liquid 23). As such, Applicant submits that the cited portions of Takahashi fail to disclose or teach a liquid supply system configured to supply a liquid to substantially only a localized area of the substrate, of the substrate table, or of both, to at least partly fill a space between the projection system and the substrate, the substrate table, or both, wherein the localized area is less than the area of a surface of the whole substrate. An advantage of the claimed invention is to provide a barrier to collect liquid in a localized immersion lithography arrangement. In contrast, the arrangement in Takahashi merely is a container for a fully liquid immersed or covered substrate.

Therefore, for at least the above reasons, Applicant submits that a case of anticipation has not been established and that the cited portions of Takahashi fail to disclose each and every feature recited by claims 1 and 19. Claims 2-5, 7-10, 12, and 15-18 depend from claim 1, and claims 20-25 and 27 depend from claim 19, and are patentable for at least the same reasons provided above related to claims 1 and 19, and for the additional features recited therein. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §102(b) of claims 1-5, 7-10, 12, 15-25 and 27 over Takahashi should be withdrawn and the claims be allowed.

Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of U.S. Patent Application Publication No. 2004/0119795 to Noolandi et al. ("Noolandi"). Applicant traverses this rejection for at least the following reasons.

Claim 11 depends from claim 1. As discussed above, the cited portions of Takahashi fail to disclose or render obvious each and every feature of claim 1, from which claim 11 depends.

Further, Applicant submits that the cited portions of Noolandi do not overcome the shortcomings of the cited portions of Takahashi. First, Applicant submits that Noolandi is non-analogous art that cannot be properly applied here. Noolandi discloses a device for dispensing particulate matter, which is not at all related to lithography. Thus, Applicant submits that Noolandi is not a reference that "logically would have commended itself to an inventor's attention in considering his problem." *See In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992).

Moreover, even assuming, *arguendo*, that Noolandi is analogous art and that the cited portions of Noolandi and Takahashi are properly combinable (which Applicant does not

concede), Applicant respectfully submits that the cited portions of Noolandi fail to disclose a substrate, let alone a liquid supply system configured to supply a liquid to substantially only a localized area of the substrate, of the substrate table, or of both, to at least partly fill a space between the projection system and the substrate, the substrate table, or both, wherein the localized area is less than the area of a surface of the whole substrate.

Therefore, for at least the above reasons, Applicant submits that a *prima facie* case of obviousness has not been established and that the cited portions of Takahashi, Noolandi, or a proper combination thereof fail to disclose or render obvious each and every feature recited by claim 1. Claim 11 depends from claim 1 and is patentable for at least the same reasons provided above related to claim 1, and for the additional features recited therein. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §103(a) of claim 11 over Takahashi in view of Noolandi should be withdrawn and the claim be allowed.

All matters having been addressed and in view of the foregoing, Applicant respectfully requests reconsideration of this application and the immediate allowance of all pending claims.

Applicant's representative remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
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